

until issuance of a Notice of Allowance, at which time, the Applicants will submit formal drawings overcoming the objections.

In paragraphs 1 and 2 of the Office Action, claims 1-9, 11-19 and 21 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,659,665 to Whelpley, Jr. Additionally, in paragraphs 3 and 4 of the Office Action, claims 10 and 20 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Whelpley, Jr. as applied to claims 1 and 11, and further in view of U.S. Patent No. 6,088,671 to Gould et al. (Gould). In response, the Applicants respectfully traverse the Examiner's rejections.

Prior to addressing the rejections on the art, however, a brief review of the Applicants' invention is appropriate. The Applicants have invented a method and system which addresses the unique difficulties in recognizing voice commands incorporating dictation. Conventional speech systems have difficulty processing voice commands mixed with dictation because associated command grammars are, by necessity, coded with a limited number of command patterns. In consequence, many conventional speech systems interpret voice commands mixed with dictation as ordinary speech dictation, transcribing the entire spoken phrase as text in a document. By comparison, other conventional speech systems which are configured to process voice commands based on a limited command grammar completely ignore a voice command mixed with dictation because the words in the dictation portion of the mixed utterance are not included in the command grammar.

Unlike conventional speech systems, the Applicants' invention is a method and system adapted for speech recognition in which mixed voice commands having

ordinary dictation as a parameter can be executed in order to perform system and application software events. An exemplary mixed voice command can include, for instance, "Schedule a meeting on Thursday regarding next quarter's plan", where "Schedule", "meeting" and "regarding" are terms included in a command grammar which collectively are recognizable as a voice command, "Thursday" is a recognized parameter for the voice command, and "next quarter's plan" is a dictation portion having words which are not included the command grammar.

In the Applicant's invention, a matching parameterized command pattern can be identified in a mixed voice command. Once a matching command pattern has been identified, the dictation portion in addition to other parameters can be extracted from the mixed voice command. Finally, a corresponding computer system command expression can be selected and the dictation portion and other parameters can be provided to the selected command expression. In the above example, for instance, the computer system command "schedulemeeting(<day>, <text>)" can be selected and the parameters, "Thursday" and "next quarter's sales plan" can be provided thereto. Consequently, the complete command expression, "schedulemeeting(Thursday, "next quarter's sales plan")" can generated and sent to the active application for execution.

Turning now to the rejections on the art, in paragraph 2 of the Office Action, claims 1-9, 11-19 and 21 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Whelpley, Jr. In the Office Action, the Examiner contends that Whelpley, Jr. teaches a method for executing a voice command in the form of a spoken utterance which includes the following steps:

- A. receiving a user input corresponding to the spoken utterance;
- B. processing the user input to identify a pattern of words forming the spoken utterance which matches a pre-determined command pattern;
- C. identifying a computer system command corresponding to the predetermined command pattern, the computer system command having at least one parameter;
- D. extracting the at least one parameter from a dictation portion of the voice command exclusive of the pattern of words; and,
- E. processing the computer system command to perform an event in accordance with the at least one command parameter.

Notwithstanding, the Applicants respectfully disagree with the Examiner's contention and observe that Whelpley, Jr. wholly lacks any teaching directed towards steps C through E. More specifically, Whelpley, Jr. fails to explicitly or implicitly address processing a command pattern having at least one parameter. Whelpley, Jr. also fails to discuss any step of extracting a parameter from a dictation portion of a voice command.

Whelpley, Jr. discloses a method and apparatus for providing speech recognition capabilities to a computer system. Specifically, the invention in Whelpley, Jr. is an apparatus that can be inserted into the keystroke data path between a keyboard and microprocessor unit in a computer system to provide voice recognition capabilities to the computer system. Speech processing components in the apparatus can compare patterns of detected speech information to patterns of predetermined voice commands associated with repetitive keystroke sequences which may be performed at the keyboard. If a match is found, the speech processing components generate keystroke data which are equivalent to that which would have been generated at the keyboard

had the user physically depressed a key on the keyboard a multiplicity of times in sequence.

Importantly, nowhere, particularly in column 2, lines 17-26, of the Whelpley, Jr. specification, is it disclosed that any identifying computer system command corresponding to a predetermined command pattern has at least one parameter. Moreover, column 8, lines 32-42 is wholly devoid of any reference to extracting a parameter from a dictation portion of a voice command. Rather, column 8, lines 32-42 state in pertinent part:

If in step 204 the processing component 52 determines that the speech patterns detected indicate that an element which is required for the recognition of a complete and valid voice command is missing from a voice command, the processing component 52 proceeds to perform step 206. If in step 204, the processing component 52 determines that any detected speech pattern does not correspond to that of a word which may be included as part of a voice command, in other words, that any detected speech pattern is unrecognizable, the processing component 52 proceeds to perform step 208. (emphasis added)

Hence, not only does Whelpley, Jr. fail to teach a parameterized voice command containing a dictation portion, but also Whelpley, Jr. cannot process a dictation portion of a voice command. Specifically, as stated in column 8, lines 32-42, and column 9, lines 7-14, any speech pattern which is not recognized as a voice command is reported to the user as unrecognizable and a corresponding command is not issued to the computer system. Thus, Whelpley, Jr. cannot be configured to process a mixed voice command outside of ignoring the mixed voice command in its entirety. Accordingly, the Applicants respectfully request the withdrawal of the §102(b) rejections based on the Whelpley, Jr. reference.

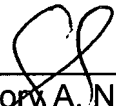
In paragraph 3 of the Office Action, claims 10 and 20 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Whelpley, Jr. as applied to claims 1 and 11, and further in view of Gould. In particular, it is stated that Gould teaches the step of "providing recognized text to a software application if no pattern of words forming the spoken utterance matches the pre-determined command pattern." The Applicants observe, however, that while Gould can process spoken commands within dictated text, Gould cannot cure the deficiencies of Whelpley, Jr. inasmuch as neither Whelpley, Jr., Gould nor their combination teach processing dictated text in a mixed voice command as a system command parameter. Accordingly, the combination of Whelpley, Jr. and Gould neither teaches nor suggests each limitation of the Applicants' claims. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

In view of the foregoing, it is believed that each of claims 1-21 are allowable over Whelpley Jr., individually and in combination with Gould. Hence, the Applicants respectfully request the withdrawal of the rejections under 35 U.S.C. §§ 102(b) and 103(a). This entire application is now believed to be in condition for allowance. Accordingly, such actions are respectfully requested.



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Respectfully submitted,

  
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